In the Specification

Please replace the paragraph on page 1, line 5, after the heading "Technical Field", with the following amended paragraph:

> This disclosure relates to surgical joining of bone bodies, and more particularly to instruments, implants and methods for instant fixation, distraction, and staged bone fusion or arthrodesis of bone ~~edies,~~ bodies, such as spinal vertebrae.

Please replace the paragraph beginning at line 13 on page 16 with the following amended paragraph:

> As shown in Figure 1, aperture 18 is prepared within vertebral bodies 12 and 14, and disc 16, according to the procedure and tools depicted in Figures 5-11 described below in further detail. Aperture 18 forms a pair of vertebral bone bodies 22 and 24 that are formed to have a cylindrical configuration comprising a cylindrical kerf ~~158~~ 44 (see Fig. 19). A leading cylindrical end of implant 10 is inserted into aperture 18, causing annulus 20 to distract as implant 10 is inserted therein (see Figs. 19-21 below). A leading open end 96 (see Fig. 12) of implant 10 entraps an intact living bone projection 168 and 170 on each respective vertebral body (see Figs. 19-22) which imparts

immediate fixation between adjacent vertebral bodies 22 and 24 upon implantation.

Please replace the paragraph beginning at line 13 on page 22 with the following amended paragraph:

Figure 5 depicts a tool guide 30 and a drill bit 38 that are used to drill a bore 40 (see Figs. 6 and 7) into vertebral bodies 12 and 14 and disc 20. Bore 40 is drilled a sufficient depth into bodies 12 and 14 so as to leave intact living bone projections 168 and ~~180~~ 170 (see Fig. 11) having sufficient size to impart instant fixation between bodies 12 and 14 upon insertion of implant 10.

Please replace the paragraph beginning at line 4 on page 30 with the following amended paragraph:

Insertion tool 120 is formed from a driver 122 and a guide 124. Guide 124 forms a threaded bore 125 in which driver 122 is received in adjustable, threaded engagement via threaded portion 150 of driver 122. An adjustment nut 126 cooperates with a lock nut ~~126~~ 128 to enable securement of driver 122 within guide 124 at a desired, threaded axial location.

Please replace the paragraph beginning at line 11 on page 31 with the following amended paragraph:

> Pins 140 and 142 are retained for radially extending inward/outward movement within associated guide holes 144 and 146, respectively. More particularly, each pin 140 and 142 is retained within hole 144 and 146 via a press-fit rolled pin 141 and 143, respectively. Each rolled pin 141 and 143 passes through an elongated slot formed through each associated pin 141 and 143. In this manner, each pin 141 and 143 is allowed to slide within guide hole 144 and 146, respectively, but is ~~prevent~~ prevented from becoming completely dislodged.

Please replace the paragraph beginning at line 19 on page 31 with the following amended paragraph:

> In order to facilitate insertion of implant 10, driver 122 has an enlarged driver handle 152 that terminates to form a driver end 154. Driver end 154 is shaped to facilitate impact with a hammer during insertion of an implant 10 between bone bodies. Furthermore, pins 140 and 142 cooperate with recessed mounting surface 130 and shelf 134 to rigidly and securely retain implant 10 on tool 120, even where considerable lateral loading might occur. Such lateral loading might

occur, for example, as a result of wiggling implant 10 and tool 120 while attempting to insert ~~tool 10~~ implant 10 within a pair of prepared vertebrae. Upon insertion, implant 10 traps adjacent vertebrae for immediate fixation, within open leading end 96.

Please replace the paragraph beginning at line 19 on page 32 with the following amended paragraph:

As shown in Figure 19, a pair of vertebrae 12 and 14 are retained together with an intervertebral disc 20. An aperture 18 is formed partially as a kerf 44, and generates bone beds in the form of inner surfaces 160, 164 and outer surfaces 162, 166. A pair of intact bone projections 168 and 170 are formed as a result extending from vertebrae 12 and 14, respectively. Such bone projections 168 and 170 are entrapped within the open leading end 96 of implant 10 (see Fig. 12) immediately upon insertion. Hence, instant fixation is ~~provide~~ provided upon implant of such device. Furthermore, instant distraction is also generated as a result of the oblique outer surface 90 of implant 10 (see Fig. 12).

Please replace the paragraph beginning at line 4 on page 34 with the following amended paragraph:

As shown in Figure 21, implant 10 generates self-distraction between vertebrae 12 and 14, once implanted. The annulus is thereby placed on stretch which further stabilizes instant fixation. The non-cylindrical fit-up between implant 10 and vertebrae 12 and 14 cooperates with the stretched annulus so as to impart rigid, instant fixation. Furthermore, implant 10 stops further compression from occurring between vertebrae 12 and 14. Likewise, implant 10 entraps bone projections 168 and 170, which prevents any <u>further</u> distraction from occurring between vertebrae 12 and 14.

Please replace the paragraph beginning at line 13 on page 34 with the following amended paragraph:

Figure 22 shows implant 10 during implantation between vertebrae 12 and 14, in a self-distracted position. Bone projections 168 and 170 are clearly shown entrapped within implant 10, which generates immediate entrapment of projections 168 and 170, and fixation between vertebrae 12 and 14. After removal and retraction of tool 124, bone grafts, or morsels, ~~172~~ <u>171</u> are then packed inside of implant 10, as shown in Figure 23.

Please replace the paragraph beginning at line 20 on page 34 with the following amended paragraph:

According to Figure 23, bone grafts ~~172~~ 171 facilitate earlier bone ingrowth and through growth. Similarly, fenestrations, as well as the open leading and trailing ends, of implant 10 further facilitate such ingrowth and through growth.

Please replace the paragraph beginning at line 9 on page 35 with the following amended paragraph:

Figure 24 is a sagittal section and diagrammatic view through implant 10 and vertebrae 12 and 14, illustrating reorganization of fused bone material through implant 10. Histologic bone cell geometry is shown in greater detail, corresponding in time with complete bone remodeling. Lacunae and canals or voids 172 are formed between the trabeculae of bone 174.